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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,867	10/30/2003	George Paskalov	100798.0008US1	2026
24392	7590	03/01/2011	EXAMINER	
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2603 Main Street			ART UNIT	PAPER NUMBER
Suite 1000				1759
Irvine, CA 92614-6232				
			NOTIFICATION DATE	DELIVERY MODE
			03/01/2011	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* GEORGE PASKALOV,  
MARK GORODKIN, and  
VIKTOR SOKOLOV

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Appeal 2009-015366  
Application 10/698,867  
Technology Center 1700

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Before CHUNG K. PAK, LINDA M. GAUDETTE, and  
MICHAEL P. COLAIANNI, *Administrative Patent Judges*.

COLAIANNI, *Administrative Patent Judge*.

DECISION ON APPEAL<sup>1</sup>

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<sup>1</sup> The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

This is a decision on an appeal under 35 U.S.C. § 134 from the Examiner's refusal to allow claims 12 through 20. Claims 1 through 11, the other claims pending in this application, stand withdrawn from consideration by the Examiner. We have jurisdiction pursuant to 35 U.S.C. § 6.

We REVERSE.

#### STATEMENT OF THE CASE

The subject matter on appeal is directed to a method of reducing biological contamination in an amount of waste. Claim 12 is illustrative.

12. A method of reducing biological contamination in an amount of waste, comprising:

providing an RF plasma wave generator; and

carrying the waste past waves radiated by the RF plasma wave generator under conditions in which a substantial percentage of the population of a microbe in the waste is inactivated or killed, to produce a treated waste; and

without subjecting the waste directly to a plasma generated by the RF plasma wave generator.

The Examiner maintains the following rejections:

1) Claims 12-20 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement; and

2) Claims 15-17 and 20 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention;

3) Claims 12-14 under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as unpatentable over Laroussi (US 5,876,663, issued Mar. 2, 1999);

- 4) Claims 15 and 20 under 35 U.S.C. § 103(a) as unpatentable over Laroussi and Ubelhor (US 6,379,539 B1, issued Apr. 30, 2002);
- 5) Claims 16 and 17 under 35 U.S.C. § 103(a) as unpatentable over Laroussi; and
- 6) Claims 18 and 19 under 35 U.S.C. § 103(a) as unpatentable over Laroussi.

## REJECTION (1)

### ISSUE

Did the Examiner reversibly err in alleging that the later claimed negative limitation<sup>2</sup> “without subjecting the waste directly to a plasma” recited in claim 12 was not described in the originally filed disclosure within the meaning of 35 U.S.C. § 112, first paragraph? We decide this issue in the affirmative.

### PRINCIPLE OF LAW

As stated in *Ariad Pharms., Inc. v. Eli Lilly and Co.*,

the test for sufficiency [of the written description] is whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date. . . . The term "possession," however, has never been very enlightening. It implies that as long as one can produce records documenting a written description of a claimed invention, one can show possession. But the hallmark of written description is disclosure. Thus, "possession as shown in the disclosure" is a more complete formulation. Yet whatever the specific

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<sup>2</sup> This claim limitation was added via an amendment filed on July 24, 2007.

articulation, the test requires an objective inquiry into the four corners of the specification from the perspective of a person of ordinary skill in the art. Based on that inquiry, the specification must describe an invention understandable to that skilled artisan and show that the inventor actually invented the invention claimed.

598 F. 3d 1336, 1351 (Fed. Cir. 2010) (*en banc*).

### FACTUAL FINDINGS, ANALYSIS, AND CONCLUSION

The Examiner alleges that the disputed claim limitation “was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.” (Ans.<sup>3</sup> 3). We disagree.

The originally filed Specification at page 3, lines 25-27, discloses reducing biological contamination in waste via “carrying the waste past *waves* produced by the [RF plasma wave] generator.” (emphasis added). The Specification at page 6, lines 8-9 discloses that “[t]he *waves* from the RF plasma come in *contact* with the fluid waste thereby producing treated water.” (emphasis added). In other words, the Specification only requires that the waste be directly subjected to waves, not the plasma.

In addition, as noted by Appellants at pages 1 and 2 of the Reply Brief, the Examiner acknowledges that Appellants describe at paragraph [0019] of their parent application (i.e., U.S. Patent Application Serial No. 10/432,208, filed on May 20, 2003), which is incorporated by reference in the instant application, an RF plasma wave generator that “provides support for . . . [the disputed] claim [feature].” (Ans. 14). Indeed, paragraph [0019] of the parent application discloses a plasma wave generator that includes an

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<sup>3</sup> We refer to the Answer filed on July 6, 2009.

RF electrode inside of a quartz tube, which is known to be a closed reactor that contains the plasma gas. As stated in *MPEP* § 2163.07 (Rev. 6, Sept. 2007), “[t]he information incorporated is as part of the application as if the text was repeated in the application and should be treated as part of the text of the application as filed.”

Thus, we find that the disclosure as a whole would have reasonably conveyed to one skilled in the relevant art that the inventors had possession of the later claimed negative limitation “without subjecting the waste directly to a plasma” recited in claim 12; no new concept has been introduced by the negative limitation.

Accordingly, for the reasons stated by Appellants in the Brief and above, we reverse the Examiner’s rejection of claims 12-20 under § 112, first paragraph, as failing to comply with the written description requirement.

## REJECTION (2)

The Examiner alleges that the claims are “indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention” because it is unclear if the “‘treating the waste at a rate of at least 20 l/hr’ [feature recited in dependent claims 15-17 and 20] is further limiting the ‘conditions’ recited in [independent] claim 12.” (Ans. 5-6).

It is well settled that “the claims themselves provide substantial guidance as to the meaning of particular claim terms.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005).

In this case, one of ordinary skill would have been apprised of the scope of claims 15-17 and 20 based on their plain meanings since the “treating the waste at a rate of at least 20 l/hr” feature recited in claims 15-17 and 20 plainly refers to *one* of the “conditions . . . to produce a treated waste” feature recited in independent claim 12.

Accordingly, for the reasons stated by Appellants in the Briefs and above, we reverse the Examiner’s rejection of claims 15-17 and 20 under § 112, second paragraph.

#### REJECTIONS (3)-(6)

With respect to the Examiner’s § 102 rejection and § 103 rejections (rejections (3) through (6)), the Examiner alleges that Laroussi teaches the “carrying the waste past waves radiated by the RF plasma wave generator . . . *without subjecting the waste directly to a plasma*” feature recited in claim 12. (Ans. 7-12) (emphasis added). In support of this position, the Examiner relies on column 1, line 67 to column 2, line 2; column 4, lines 54-55; and Figure 1 of Laroussi. (Ans. 7-12).

Contrary to the Examiner’s allegation, however, none of the portions of Laroussi relied upon by the Examiner teaches the disputed claim feature. In this regard, while column 4, lines 54-55 of Laroussi state that “[t]he water is exposed to irradiation for a period long enough to be sterilized,” Laroussi’s column 4, line 52 teaches that this irradiation is a *plasma* irradiation. In other words, Laroussi teaches that the water is exposed to, *inter alia, plasma* from the plasma irradiation. This interpretation is supported by Laroussi’s disclosure that upon irradiation by the plasma the liquid is constantly bombarded by “free radicals, excited atoms or

molecules, electrons, ions and radiation” which kill bacteria in the liquid (Laroussi, col. 5, ll. 50-53).

In addition, while the Examiner correctly points out (Ans. 16-17) that Laroussi’s Figure 1 illustrates the wave within container 5 (depicting the contaminated water) as having no particulate shaded region (depicting the plasma irradiation), Figure 1 also illustrates that this particulate shaded region (depicting the plasma irradiation) *contacts* this wave within container 5 (depicting the contaminated water). Indeed, Figure 1 does not illustrate any barrier separating the wave within container 5 and the particulate shaded region.

Thus, the Examiner fails to direct us to any credible evidence or provide any persuasive explanation to support the allegation that Laroussi teaches the “carrying the waste past waves radiated by the RF plasma wave generator . . . *without subjecting the waste directly to a plasma*” feature recited in claim 12.

In addition, with respect to rejection (4), the Examiner does not provide any additional findings or determinations as to how Ubelhor would have satisfied the disputed claim feature.

Accordingly, for the reasons stated by Appellants in the Briefs and above, we reverse the Examiner’s § 102 and §103 rejections.

## ORDER

Rejections (1) through (6) are reversed.

REVERSED

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Appeal 2009-015366  
Application 10/698,867

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